

EXHIBIT 12

Cassava and the Wang Lab:

...

Seeing Through the Blind

Cassava & Wang claimed repeatedly to be conducting bioanalysis BLINDED

Statements describing Open-Label 6-Month study
analysis in company SEC filings and presentations

The Wang lab is referred to as an outside lab
conducting analysis of 6-Month OL samples blinded

INTERIM RESULTS – CSF Biomarkers

Changes in CSF biomarkers were assessed in a subset of subjects
(n=25) following 6 months of open-label simufilam treatment.
CSF samples were analyzed in triplicate, **blind** to timepoint, by
ELISA in an automated platereader. CSF P-tau¹⁸¹, total tau, A β ₄₂,

[PowerPoint Presentation \(cassavasciences.com\)](https://cassavasciences.com)

July 29, 2021
Page 2 of 4

SEC Filings

About Cerebrospinal Fluid (CSF) Biomarkers

A key objective of this analysis was to measure changes in levels of biomarkers in patients before and after 6 months of treatment with open label simufilam. Biomarker data were analyzed from CSF collected from 25 patients with mild-to-moderate Alzheimer's disease who are enrolled in an on-going open-label study and who agreed to undergo a lumbar puncture at baseline and again after 6 months of treatment. All bioanalyses were conducted **blind** by an outside lab. Simufilam robustly improved all measured CSF biomarkers (all p-values are baseline vs. 6-month levels by paired t-test):

A key objective of this bioanalysis was to measure changes in levels of biomarkers in patients before and after 6 months of treatment with open label simufilam. Biomarker data were analyzed from cerebrospinal fluid (CSF) collected from 25 patients with mild-to-moderate Alzheimer's disease who are enrolled in the open-label study and who agreed to undergo a lumbar puncture at baseline and again after 6 months of treatment. All bioanalyses were conducted **blind** by an outside lab.

Simufilam robustly improved all measured CSF biomarkers in this cohort of 25 patients with mild-to-moderate Alzheimer's disease.

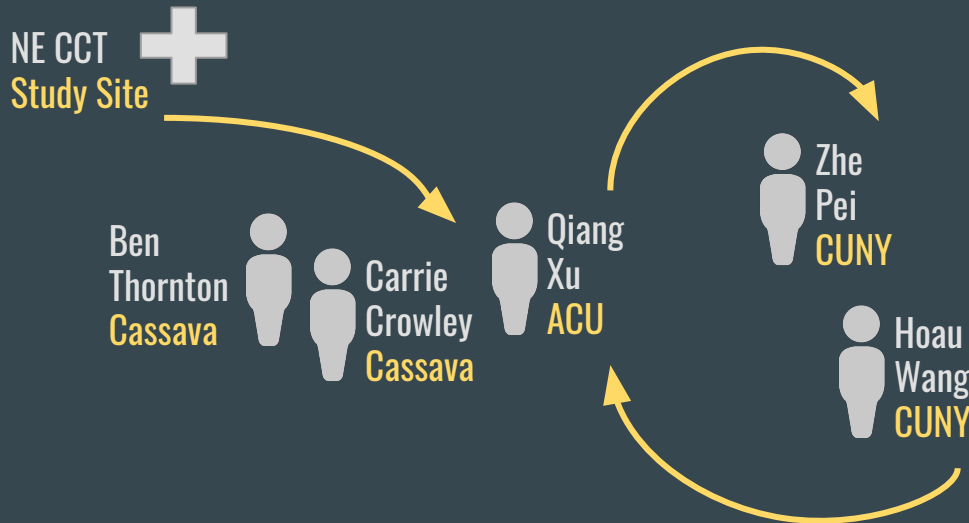
CTAD Poster

[Exhibit 993 \(sec.gov\)](#). TOP

[Inline XBRL Viewer \(sec.gov\)](#) BOTTOM

Emails reveal all parties had access to sensitive patient information

Participants inc members of Cassava and three academic collaborators; Drs Xu, Wang and Pei (Wang postdoc)



The email exchange discusses the shipping and labelling of clinical samples from a trial site

SHIPPING MANIFEST FORM

Protocol Number: PTI-125-04 Date Shipped: 10-20

Contact Name: Carrie Crowley Department: Research
 Company Name: CCT Research Address: 17020 Lakeside Hills Plaza Ct # 130
 Phone Number: 402-979-8770 Site: IS PL Denver

Shipper: ☒ X Federal Express ☐ UPS ☐ _____
 Type of Shipment: ☒ X Priority Overnight ☐ Standard Overnight ☐ _____
 Shipping conditions: ☐ Room Temperature ☐ Cool Packs ☒ Dry Ice ☐ _____
 Number of Boxes: ☒ X One Box ☐ Two Boxes ☐ _____

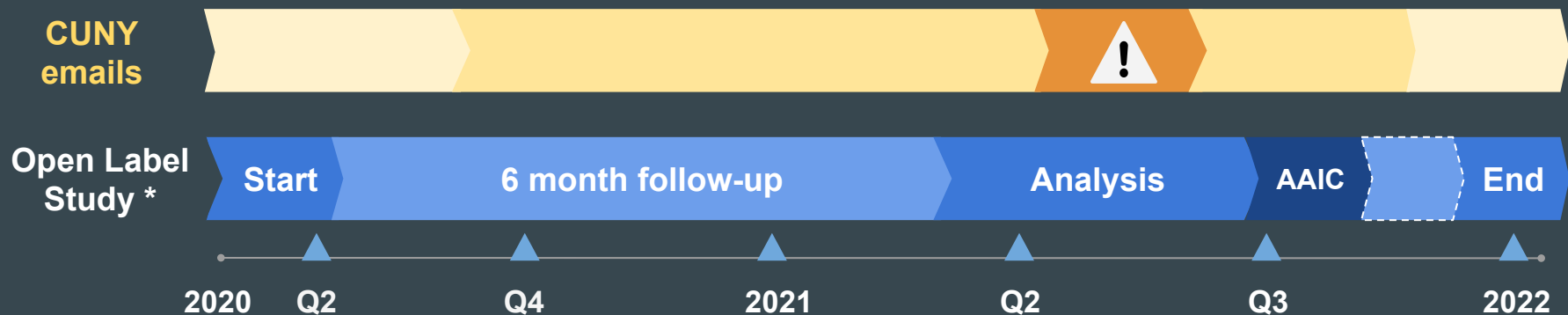
Patient ID	Sample Type, Volume & Number of Tubes/Vials				Lab Number	Date/Time Sample Collected
	CSF	Plasma	Whole Blood	Other Information		
15-3603		1 - 1.8 mL				10-21-20
15-3601		1 - 1.8 mL				10-21-20
15-3602		1 - 1.8 mL				10-21-20

IMPORTANT Condition upon receipt (to be completed by recipient): ☐ Acceptable ☐ Unacceptable
 Received by: _____ Date/Time: _____

CCT Research version 1.0 Confidential Page 1 of 2

Emails show both Cassava & Wang were NOT BLINDED during the open-label study 1/2

Emails retrieved from a FOIL request to CUNY expose Cassava and the Wang Lab as being unblinded during sample analysis, prior to data presentation and while study is ongoing



During April & May 2021, the shipment of samples individually labelled as **Day 1** or **6 Month** from Xu lab to Wang are discussed with multiple company members

* Estimated study timeline

Emails show both Cassava & Wang were NOT BLINDED during the open-label study 2/2

Individual samples are labelled as either Day 1 or Month 6, and by site and patient ID.

Hence, whether a patient is ON or OFF the drug is known to the person analyzing samples

This could allow Wang* to decide what sample measurements “should be”.

*Wang is currently under investigation for scientific misconduct

From: Qiang Xu <qxx07a@acu.edu>
Sent: Thursday, April 29, 2021 1:57 PM
To: Zhe Pei <[REDACTED]@hotmail.com>
Cc: Carrie Crowley <ccrowley@cassavasciences.com>
Subject: Re: Would you please help me to confirm the list of all CSF samples? Thank you

Hi Zhe,

Thank you for your email. I think you are doing a good job on this! Some tubes had preprinted labels and they were very readable. However, others had very faint labels when I opened those original bags. I have already shared the original manifest with you. You may double check some information on the manifest.

The 22 CSF samples I sent to you are:

- 03-3001 (Both SV2 and Month 6)
- 03-3002 (Both SV2 and Month 6)
- 03-3005 (Both SV2 and Month 6)
- 03-3006 (Both SV2 and Month 6)
- 03-3007 (Both SV2 and Month 6)
- 03-3008 (Both SV2 and Month 6)
- 15-3002 (Month 6 only)
- 15-3003 (Both SV2 and Month 6)
- 15-3004 (Both SV2 and Month 6)
- 15-3006 (Both SV2 and Month 6)
- 15-3013 (Both SV2 and Month 6)
- 15-3014 (SV2 only)

You may want to double check if "03-3011 M6" is actually "03-3001 M6" in your excel file. Also double

check if your "15-3012 day 1" is actually "15-3013 day 1".

Wang is UNBLINDED in Open Label Extension, Was he UNBLINDED for the entire P2b?

Similar claims of “blind to timepoint” were made about the 28-day P2b study

ratio in CSF. This CSF sample also served as our baseline for biomarkers that were measured again after just 28 days of treatment. Biomarkers were measured by an outside lab, blind to treatment and timepoint. We measured the core AD biomarkers as well as biomarkers of neurodegeneration, neuroinflammation and blood-brain barrier integrity. We saw significant improvements versus placebo

RB, NF and LHB designed the clinical trial with guidance from JC. Biomarker analyses were conducted

blind to treatment and time point by H-YW, ZP and K-CL. APOE genotyping was conducted by K-CL. CC

If Cassava is lying about blinded analysis now, were they lying about it the whole time?

“If unblinding is deliberate and/or not revealed, that greatly increases its seriousness, placing it in the research misconduct arena. FDA has a zero tolerance policy in this area.” – ex-FDA OSI member

Wang's "Outside" lab has sensitive patient information including INITIALS

Alarminglly, Wang lab member Pei discusses labelling clinical sample vials with a patient's initials

Why would the Wang lab have access to this information?

Who provided them with this information?

Is the Wang/CUNY lab - as a third-party - authorised to hold patient-specific information?

From: Zhe Pei <[REDACTED]@hotmail.com>
Sent time: 04/29/2021 10:54:10 AM
To: qxx07a@acu.edu
Cc: Carrie Crowley <ccrowley@cassavasciences.com>; Ben Thornton <gthornton@cassavasciences.com>; Hoau-yan Wang
Subject: [EXTERNAL] Re: Would you please help me to confirm the list of all CSF samples? Thank you

Good morning Prof. Xu,

Thank you for the valuable suggestions! Those new tags were generated based on the list you shared in the previous email. I will replace "Scr. /Day1" by "SV2" in our record. Just wondering if we could also identify those labels based on initials (e.g. 15-3013, KP [REDACTED]) and dates to make sure there won't be any misunderstanding in sample processing.

Early of the week could be a great time, just in case of FedEx delivery has some issues and we could get time to fix it.

Thank you so much!

Zhe

We redacted per HIPAA Privacy Rule

Based on the obtained emails we conclude that:

There is risk to patient privacy and possible HIPAA violation

- It is entirely conceivable that an individual study participant can be identified simply via an online search
- No safeguards are in place to de-id patient samples or protect patient privacy
- Sensitive information has been shared with third-party, “outside”, “blinded” lab

There is a risk of biomarker data manipulation

- Lab personnel know subject ID and site PLUS dosing status (Day 1 vs 6 Month)
- Wang has clear COI as a Cassava SAB member, stockholder and lead Simuflam researcher
- Wang is under investigation for data manipulation

Previous assurances of data integrity are suspect

- Haphazard treatment of patient information observed in email makes “chain of custody” claim ridiculous
- Suspicious changes in the baseline of the cognitive scores become even more so

All relevant CUNY FOIA material can be found [here](#)

Contributors

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- ★ Enea Milioris, PhD
- ★ Adrian Heilbut, PhD
- ★ Patrick Markey, PhD

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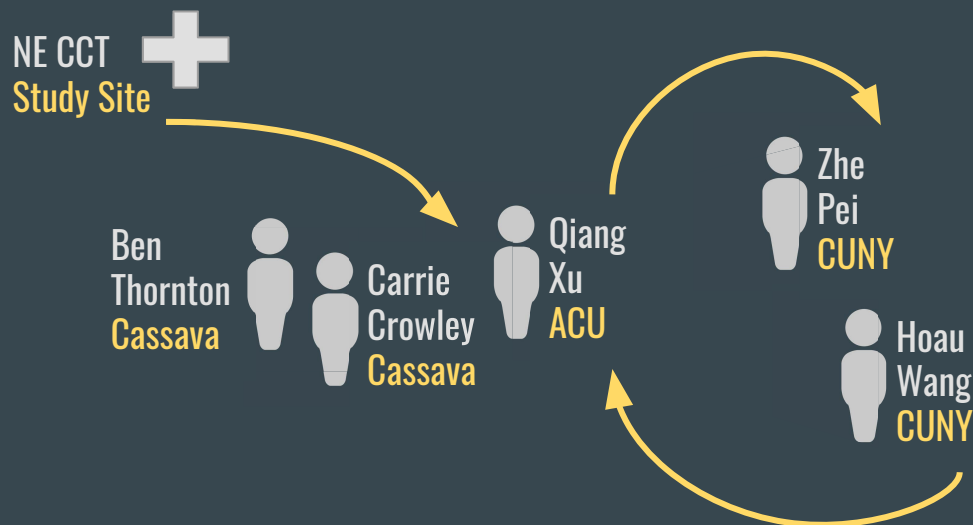
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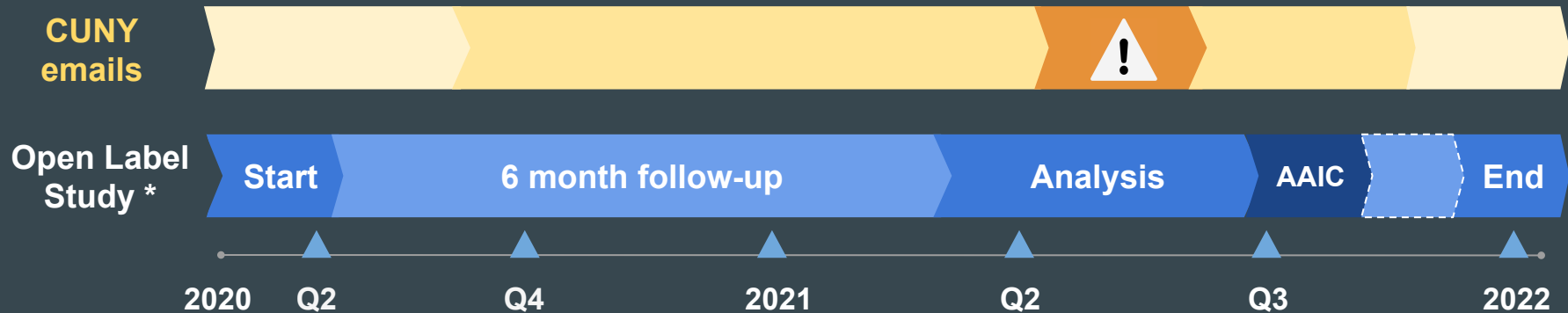
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